SELECO S15E222

MODEL

SERVICE MANUAL

MAIN COMPONENTS

PC 010 - Multifunctional chassis including following functional units:

a) IF amplifier, AFC, horizontal and vertical oscillator, syncro separator (TDA8349A-TDA8215A)
b) Vertical deflection (TDA8215A)
c) Horizontal deflection (TDA8215A - T301)
d) Switch - mode power supply (TEA2261 - T401)
e) 5V and 12,6V switching circuit (TDA8139)
f) Audio output circuit (TDA 8191)
g) Luminance and chrominance circuit (TDA 3301/B)
h) Tuning circuit (TEMA02)

PCBs plugged on chassis

F2077/04	- CATV RF unit p.c.b. (38,9 Mhz video IF; 33,4 Mhz audio IF)
PC 012	- Teletext decoder

PCBs off chassis

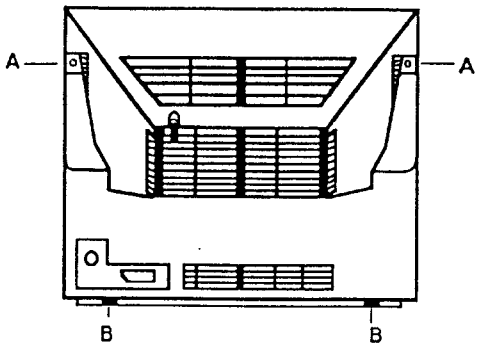
PC 011	- CRT p.c.b. with video output stages

ICs used and relevant functions

Schematic ref.	Type	P.c.B.	Electronic Functions
CI 1	TEMA02	PC 010	Tuning Microcomputer with On-screen Display.
CI 101	TBA 3301	PC 010	PAL decoder
CI 401	TEA 2261	PC 010	Switch-mode oscillator and control
CI 201	TDA 8349A	PC 010	IF amplifier, AGC, muting, video demodulator and aplifier, AFC and video switch
CI 601	TDA 8215A	PC 010	Synchro separator, vert. & orizz. oscillator and vertical output amplifier
CI 701	TDA 8191	PC 010	Audio amplifier
CI 1	CF 72306	PC 012	Teletext video processor
CI 2	CF 70084	PC 012	Teletext character generator

ACCESS TO INTERNAL COMPONENTS

To remove the back panel:
-Unscrew screws A.
-Introduce a blade type screwdriver into B slots and press.
-Pull the bottom part of the back panel and remove it.



SAFETY NOTE

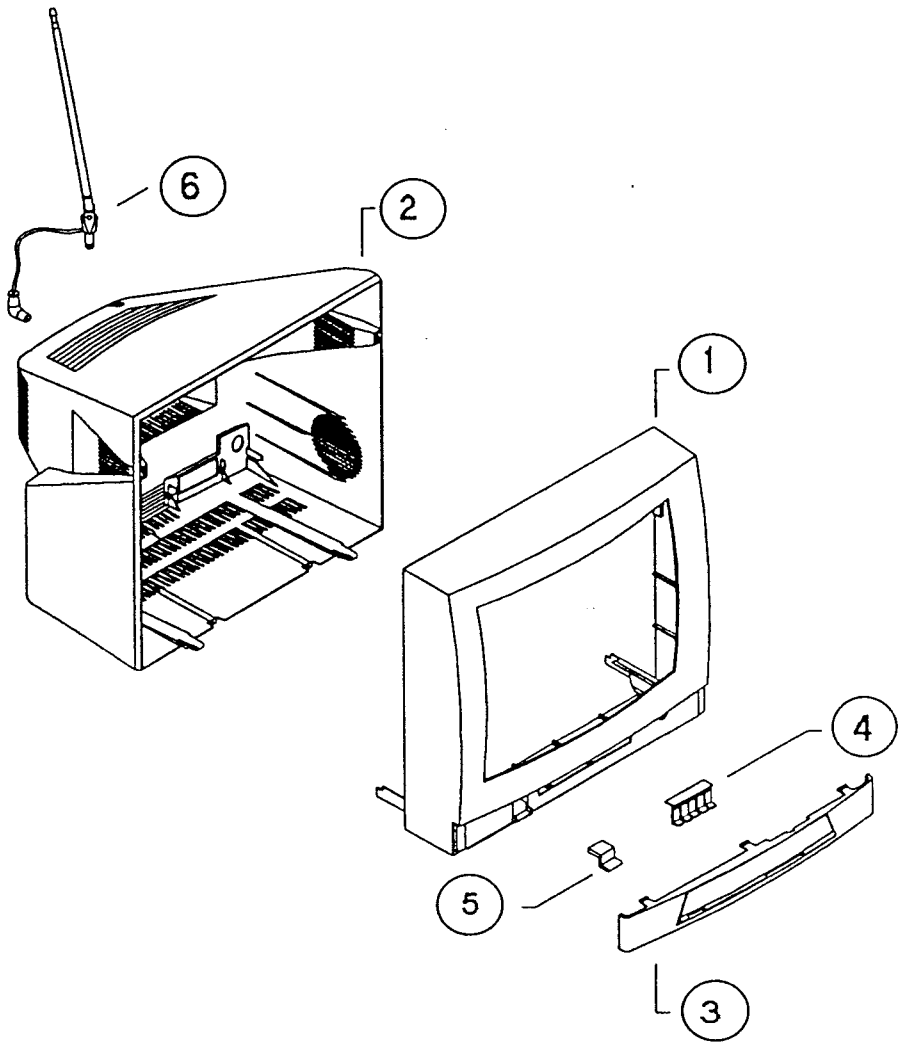
-Do not accidentally touch that part of chassis supply not electrically separated from mains.
-Do not install, remove, or handle the picture tube unless shatter-proof goggles are warn and install, remove or handle only after having kept away people not so equipped
-Before returning a serviced receiver to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the instrument by the manufacturer has become defective or inadvertently defected during servicing.
Therefore following checks are recommended:

-**Insulation.** Resistance should not be less than 2M Ohm at 500 V DC between the mains poles and any accessible metal parts.
-**High voltage.** High voltage should not be kept at rated value indicated on the receiver's back panel, no higher. Operating at higher voltage may cause failure of the picture tube or of high voltage supply.

Furthermore, in no case whatsoever must the electrical circuit providing the EHT be altered so as to prevent wrong voltage values from causing ionizating radiations above those allowed by International Standards.

Transistors used and relevant functions

Schematic Ref.	Type	P.c.b.	Electronic functions
T 1	BC 558/B	PC 010	Band IV-V switching
T 2	BC 558/B	PC 010	Band III switching
T 3	BC 558/B	PC 010	Band I switching
T 5	BC 548/B	PC 010	Volume control amplifier
T 6	BC 548/B	PC 010	Fast blanking driver
T 7	BC 548/B	PC 010	Red character driver
T 8	BC 558/B	PC 010	Green character driver
T 9	BC 548/B	PC 010	Blue character driver
T 14	BF 240	PC 010	Tuning voltage amplifier
T 101	BC 548/B	PC 010	Vertical blanking shaper
T 201	BC558/B	PC 010	Emitter follower
T 202	BC548/B	PC 010	Emitter follower
T 102	BC 558/B	PC 010	Vertical blanking shaper
T 305	BU 508D	PC 010	Horizontal output amplifier
T 401	SGSF313	PC 010	Switch-mode transistor switch
T 701	BC 548/B	PC 010	Audio muting
T 501	BF 422	PC 011	Red output amplifier
T 502	BF 493S	PC 011	Red beam current measurement
T 503	BF 422	PC 011	Green output amplifier
T 504	BF 493S	PC 011	Green beam current measurement
T 505	BF 422	PC 011	Blue output amplifier
T 506	BF 493S	PC 011	Blue beam current measurement
T 1	BC548/B	PC 012	Emitter follower
T 2	BC639	PC 012	5V switch
T 3	BC548/B	PC 012	5V switch
T 3	BC548/B	PC 012	Teletext blue emitter follower
T 4	BC548/B	PC 012	Teletext green emitter follower
T 5	BC548/B	PC 012	Teletext red emitter follower
T 6	BC548/B	PC 012	Teletext blanking emitter follower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2
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3

BESTELL-NR.	0659789	0660225
GERAETEBEZEICHNUNG	FARBFERNSEHKOFFER	FARBFERNSEHKOFFER
WARENGATTUNG	646	646
AUSFUEHRUNGS-NR.	001	001
GERAETEBESCHREIBUNG	37 CM, MONITOR	37 CM, MONITOR, VT
PRIVILEG	FK 5930	FK 5930
LIEFERANTEN-NR.	784727	784727
PREIS	399.00	499.00
KATALOG	932	932
GARANTIEZEIT	6	6
KD-SEKTOR	F	F
HEIM/BRINGE	WERKSTATT	WERKSTATT
BETREUUNG	EIGEN	EIGEN
KOSTENTRAEGER	EIGEN	EIGEN
REPARATURFAEHIG	JA	JA

POSITION	SYM	BEZEICHNUNG	ET-NUMMER	ANZ
1		GEHAEUSE-VORDERTEIL	776 175 2	001
2		GEHAEUSE-RUECKTEIL	776 174 5	001
3		BEDIENTEILKLAPPE	776 178 6	001
4		TASTENSATZ	776 177 8	001
5		KNOPF F. NETZSCHALTER	776 176 0	001
6		TELESKOPANTENNE	776 173 7	001

		HAUPTCHASSIS PC 010	776 166 1	001
		BILDROEHRENPLATTE PC 011	776 167 9	001
		TUNER	776 168 7	001
	*	VIDEOTEXT-MODUL PC 012	776 169 5	001
		BILDR. A 37 GDA 85 X - TC 01	776 170 3	001
		FERNBEDIENUNG	776 171 1	001
		LAUTSPRECHER 16 OHM 2 WATT	776 172 9	001
		* NUR IN BEST.-NR. 066.022 5:		

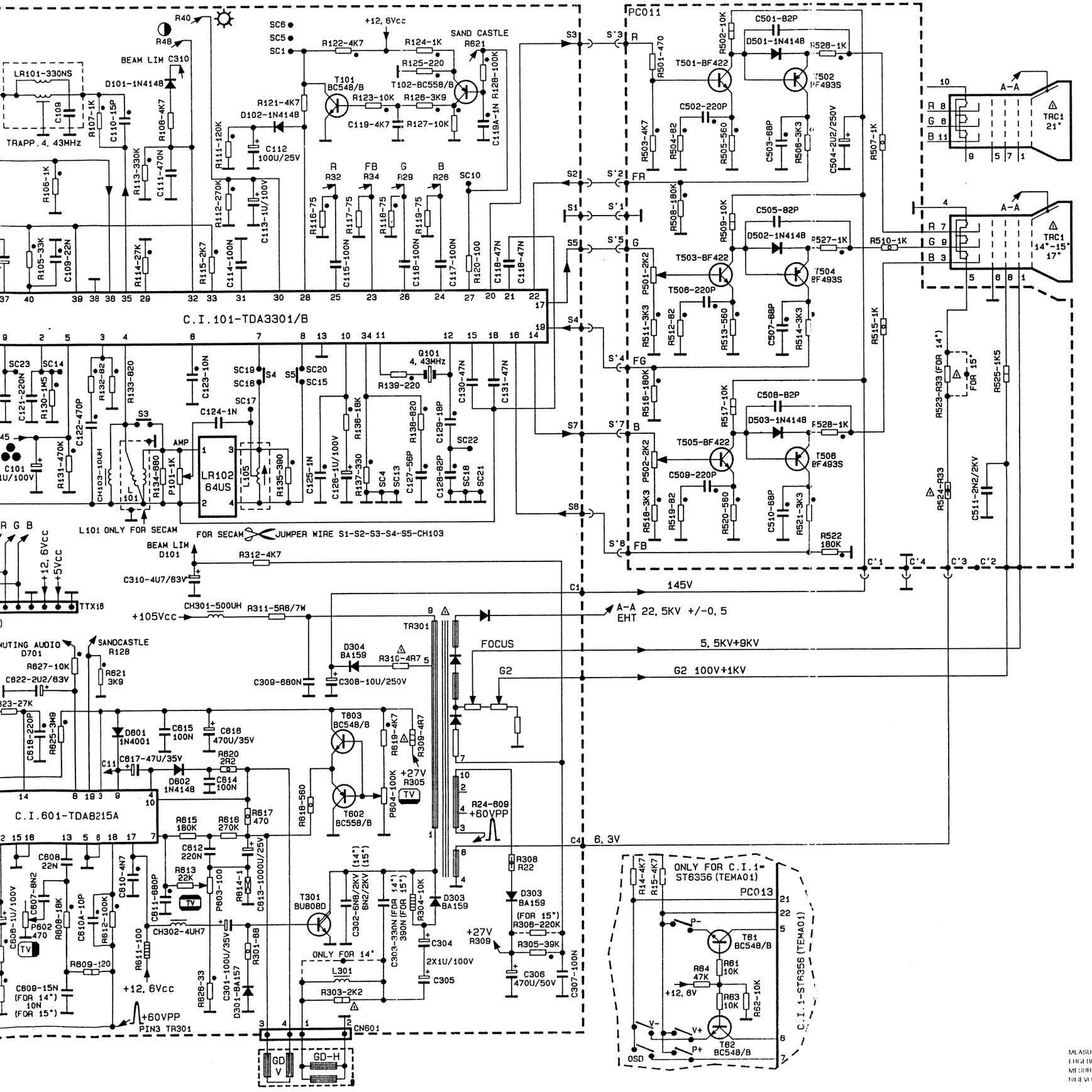
		TEILE AUF CHASSIS "PC 010"		
004		HALTER F. LED'S	729 714 6	001
014		TUNER	776 168 7	001
C 302		KONDENSATOR 6,8 NF 2000 V	956 454 3	001
C 405-407		KONDENSATOR 1 NF 1 KV	300 770 5	003
C 408		NETZELKO 100 UF / 385 V	776 179 4	001
C 417		KONDENSATOR 1 NF 1,5 KV	310 133 4	001
C 511		KONDENSATOR 2,2 NF 2 KV	726 008 6	001
CI 1		IC ST 6356 B1-30 PROG.	776 224 8	001
CI 1		IC ST 6356 B1-40 PROG.	776 181 0	001
CI 101		IC TDA 3301 / B	729 717 9	001
CI 201		IC TDA 8349 A	775 941 8	001
CI 401		IC TEA 2261	776 180 2	001
CI 402		IC TDA 8139	729 719 5	001
CI 601		IC TDA 8215 A	776 183 6	001
CI 701		IC TDA 8191	776 182 8	001
D 1		DIODE 1 N 4148	175 540 4	001
D 103		DIODE 1 N 4001	176 419 0	001
D 301,302		DIODE BA 157	176 406 7	002
D 303,304		DIODE BA 159	176 447 1	002
D 401-404		DIODE 1 N 4007	176 436 4	004
D 405,406		DIODE BA 157	176 406 7	002
D 407		DIODE BA 159	176 447 1	001
D 408,409		DIODE BYV 95 C	968 838 3	002
D 601		DIODE 1 N 4001	176 419 0	001
DL 1		LED (ROT)	729 739 3	001
DZ 401		ZENERDIODE RD 3,3 EB	950 537 1	001
DZ 801		ZENERDIODE ZTK 33	176 855 5	001

POSITION	SYM	BEZEICHNUNG	ET-NUMMER	ANZ
FC 201		OFW FILTER G I962	776 184 4	001
IR 401		NETZSCHALTER	776 185 1	001
LR 101		VERZOEGERUNGSLEITUNG	729 742 7	001
LR 102		PAL-VERZOEGERUNGSLEITUNG	729 743 5	001
PO 401		PTC 270 VRMS	776 186 9	001
Q 1		QUARZ 8.0 MHZ	966 249 5	001
		ERSETZT ET-NR. 952 860 5		
Q 101		QUARZ 4.433619 MHZ	968 882 1	001
R 13		WIDERSTAND 10,0 OHM 0,50 W SI	985 231 0	001
R 204,209		WIDERSTAND 4,7 OHM 0,50 W SI	989 784 4	002
		ERSETZT ET-NR. 954 414 9		
R 218,308		WIDERSTAND 22,0 OHM 0,50 W SI	986 841 5	002
R 310		WIDERSTAND 4,7 OHM 0,50 W SI	989 784 4	001
		ERSETZT ET-NR. 954 414 9		
R 410		WIDERSTAND 10,0 OHM 0,50 W SI	985 231 0	001
R 523,524		WIDERSTAND 33,0 OHM 0,50 W SI	967 911 9	002
R 711		WIDERSTAND 2.2 OHM 0.50 W SI	730 009 8	001
R 810		WIDERSTAND 4,7 OHM 0,50 W SI	927 589 2	001
T 1-3		TRANSISTOR BC 556 B	945 328 3	003
		ERSETZT ET-NR. 175 955 4		
T 4		TRANSISTOR BSX 20	724 220 9	001
T 5,6		TRANSISTOR BC 546 B	923 701 7	002
		ERSETZT ET-NR. 175 954 7		
T 7-9		TRANSISTOR BC 546 B	923 701 7	003
		ERSETZT ET-NR. 175 954 7		
T 101		TRANSISTOR BC 546 B	923 701 7	001
		ERSETZT ET-NR. 175 954 7		
T 102,201		TRANSISTOR BC 556 B	945 328 3	002
		ERSETZT ET-NR. 175 955 4		
T 202		TRANSISTOR BC 546 B	923 701 7	001
		ERSETZT ET-NR. 175 954 7		
T 301		TRANSISTOR BU 808 D	776 188 5	001
T 401		TRANSISTOR SGSF 313	776 187 7	001
T 501		TRANSISTOR BF 422	953 234 2	001
T 502		TRANSISTOR BF 493 S	957 969 9	001
T 503		TRANSISTOR BF 422	953 234 2	001
T 504		TRANSISTOR BF 493 S	957 969 9	001
T 505		TRANSISTOR BF 422	953 234 2	001
T 506		TRANSISTOR BF 493 S	957 969 9	001
T 602		TRANSISTOR BC 556 B	945 328 3	001
		ERSETZT ET-NR. 175 955 4		
T 603		TRANSISTOR BC 546 B	923 701 7	001
		ERSETZT ET-NR. 175 954 7		
T 701		TRANSISTOR BC 546 B	923 701 7	001
		ERSETZT ET-NR. 175 954 7		
TR 301		ZEILENTRAFO	776 189 3	001
TR 401		NETZEINGANGSDROSSEL 2 X 56 MH	776 190 1	001
TR 402		WANDLERTRAFO (NETZTRAFO)	776 191 9	001
TS 1,2		SCHALTERLEISTE 6 FACH	776 192 7	001
TS 4,5		SCHALTERLEISTE 6 FACH	776 192 7	001

		TEILE AUF VT-PLATINE (7761695)		
CI 1		IC CF 72306	776 193 5	001
CI 2		IC CF 70084	776 194 3	001
CI 3		IC 74 HC 4066	775 642 2	001
D 1		DIODE 1 N 4148	175 540 4	001
D 2		DIODE BB 911	776 195 0	001
T 1		TRANSISTOR BC 546 B	923 701 7	001
		ERSETZT ET-NR. 175 954 7		
T 2		TRANSISTOR BC 369	958 941 7	001
T 3-7		TRANSISTOR BC 546 B	923 701 7	005
		ERSETZT ET-NR. 175 954 7		

		FERNBEDIENUNG	776 171 1	001

		ENDE		



Colour TV receiver
Farbfernsehgerät
Téléviseur couleur
Televisore a colori

«TEMA»

PC 010 - 90º

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All resistors without markings are 1/4 W - 5%. All measurements refer to ground with mains supply 220V (240V UK) correct picture and a voltmeter of 20.000 Ohm/V.

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Alle Widerstände ohne Bezeichnung sind 1/4 W - 5%. Alle Messungen beziehen sich auf Masse, mit einer Netzspannung von 220 V (240 V UK) und normalem Fernsehsignal gemessen mit einem Voltmeter von 20.000 Ohm/V.

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Toutes les résistances sans d'indication sont de 1/4 W - 5%. Toutes les mesures sont respect a la masse, avec tension secteur 220 V (240 V UK). Image corecte et avec un voltmètre de 20.000 Ohm/V.

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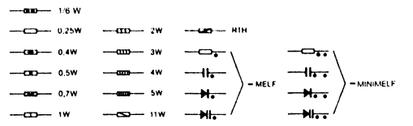
Tutte le resistenze prive d'indicazione s'intendono da 1/4 W - 5%. Tutte le misure s'intendono rispetto a massa con alimentazione rete 220 V (240 V UK). Immagine corretta e con un voltmetro da 20.000 Ohm/V.



In order to ensure the maximum safety and reliability, original spare parts should always be used when replacing components.
Particular care should be taken when replacing components marked with the symbol ⚠ .

Zur Gewährleistung von Sicherheit und Zuverlässigkeit dürfen nur Original-Ersatzteile verwendet werden.
Besondere Sorgfalt wird bei den Teilen, die mit dem Symbol ⚠ gekennzeichnet sind, verlangt.

Pour une plus grande sécurité et fiabilité, tous les composants doivent être remplacés par des pièces originales.
Il faut prêter une attention particulière à ceux portant le symbole ⚠ .

Ai fini della sicurezza ed affidabilità tutti i componenti devono essere sostituiti con pezzi originali.
Particolare attenzione va posta a quelli contrassegnati con il simbolo ⚠ .

MEASUREMENTS PERFORMED USING COLOUR BARS WITH 100% MODULATION

MESSUNGEN SIGNAL TYP 100% MODULIERTES FARBBALKEN

LES MESURES SONT EFECTUEES AVEC SIGNAL: MIRE EN COULEUR MODULEE AU 100%

RILIEVI ESEGUITI CON SEGNALE: BARRE COLORE MODULATE AL 100%

C.I.201-TDA8349A-3
C.I.701-TDA8191
C.I.1-ST6356 (TEMA 01)
C.I.401-TEA2261
C.I.402-TDA8139
C.I.601-TDA821
TELETXT (BS846)
PC010
PR801
FC201 OFWG1982
FC701 SFE5.5MB
TRAPP.4, 43MHz
38.9MHZ
L701 DEM.5.5MHZ
L202 5.5MHZ
TR401 2X56MH
TR402
T1-BC558/B
T2-BC558/B
T3-BC558/B
T4 BSX20
T5-BC548/B
T6-BC548/B
T7-BC548/B
T8-BC548/B
T9-BC548/B
T201 BC558/B
T202 BC548/B
T701 BC548/B
T401 SGSF313
D1 1N4148
D2-1N4148
D3 1N4148
D401
D402
D403
D404
D405-BA157
D406-BA157
D407 BA158
D408 BYV95C
D409 BYV95C
D410 BYV95C
D611
D701-1N4148
D702 1N4148
DZ401 ZPD3V3
DZ801-ZTK33
D103-1N4001
4X1N4008
AGC-RF P201-4K7
R209-4R7
R211-560
R206-10K
R207 4K7
R210-1K
R212-10K
R219-1K
R220-10K
R202-10M
R215
R201-33K
R203-56K
R204-4R7
R205-15K
R208-180
R213-4K7
R214-1K
R215-82K
R215A-100K
R216-5K6
R217-2K2
R218-22
R202
R1-10K
R2-10K
R3-10K
R4-5K6
R5-5K6
R6-4K7
R8-4K7
R12-12K
R10-3K9
R9-4K7
R11 3K3
R13-10R
R54-4K7
R53-10K
R50-4K7
R51-4K7
R48-18K
R49-4K7
R108
R45 56K
R47 4K7
R42 180K
R45-56K
R131
R48-4K7
R40-120K
R112
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R33-4K7
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R31-2K7
R30-4K7
R29-390
R28-2K7
R27-4K7
R26-390
R36-10K
R37-4K7
R19-4K7
R20-100K
R19A-4K7
R426
R15A 10K
R14-4K7
R15-4K7
R17-220
R18-680
R16-680
C5 100N
P-
V-
V+
P+
OSD
TTXID (TTX1)
BUS (TTX4)
CLOSED FOR RADIO
RADIO IN=L
TV=H AV=L
R715-150K
R716-100N
R717-47U/35V
R714-1K5
R715-10N
R810-4R7
R713-150
R712 15K
R710 470
R711 2R2
C712 470U/25V
C713-1000/25V
C714-47N
C710 1U/100V
C709 10U/63V
C708-8P2
C707 100U/25V
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R985-10K
R986-10K
R987-10K
R988-10K
R989-10K
R990-10K
R991-10K
R992-10K
R993-10K
R994-10K
R995-10K
R996-10K
R997-10K
R998-10K
R999-10K
R1000-10K
C1-4N7
C2-4N7
C3-47U/35V
C4-22N
C5 100N
C6-15P
C7-15P
C8-15P
C9-15P
C10-100P
C11-10U/35V
C12-100P
C202-22N
C203-22N
C201 100N
C205 100N
C204-22N
C207-22N
C206-100U/25V
C208-22U/16V
C209-2U2/63V
C210-10N
C211-470N
C212-47N
C213-100N
C214-22N
C215-100U/25V
C216-10N
C217-47N
C218-100U/25V
CH201 1UH
CH202-6UH8
CH1-56UH
CH2-100UH
CH101 15UH
CH102 15UH
CH103-10UH
CH402-10UH
Q1-8MHZ
C401-150N
C402-47N
C403-4N7/4KV
C404-150N
C405 1N/1KV
C406 1N/1KV
C407-1N/1KV
C408 100U/385V
C409-1N/1KV
C410-1U/100V
C410A-2N2
C411-220N
C412-470P
C413 100U/25V
C414-10U/63V
C415 470P
C416 47U/25V
C417-1N/1KV5
C418 100U/250V
C419 100U/250V
C420-100N
C421 470U/35V
C422 1000/25V
C423 470U/16V
C424-100N
C425-100U/25V
C426-100N
C427-4N7
C428-100N
C430-100U/25V
C431-100N
C432-100N
C101 1U/100V
C102-22P
C103-39P
C104 47P
C105-47P
C106-100U/25V
C107-22N
C108 10U/63V
C109-22N
C110-100N
C111-100N
C112-100N
C113-100N
C114-100N
C115-100N
C116-100N
C117-100N
C118-100N
C119-100N
C120-100N
C121-220N
C122-470P
C130-1M5
C131-470K
C132-82K
C801-100N
C802-56P
C803-1N
C804-2N7 2.5%
C805-12N
C806-1U/100V
C807-8N2
C808 22N
C809-15N (FOR 14") 10N (FOR 15")
C810A-10P
C810B-100N
C811-100N
C812-100N
C813-100N
C814-100N
C815-100N
C816-100N
C817-100N
C818-220P
C819 220N
C820-100N
C821-100U/25V
C822-2U2/63V
C823-27K
C824-1M5
C825-3M9
C826-100N
C827-100N
C828-100N
C829-100N
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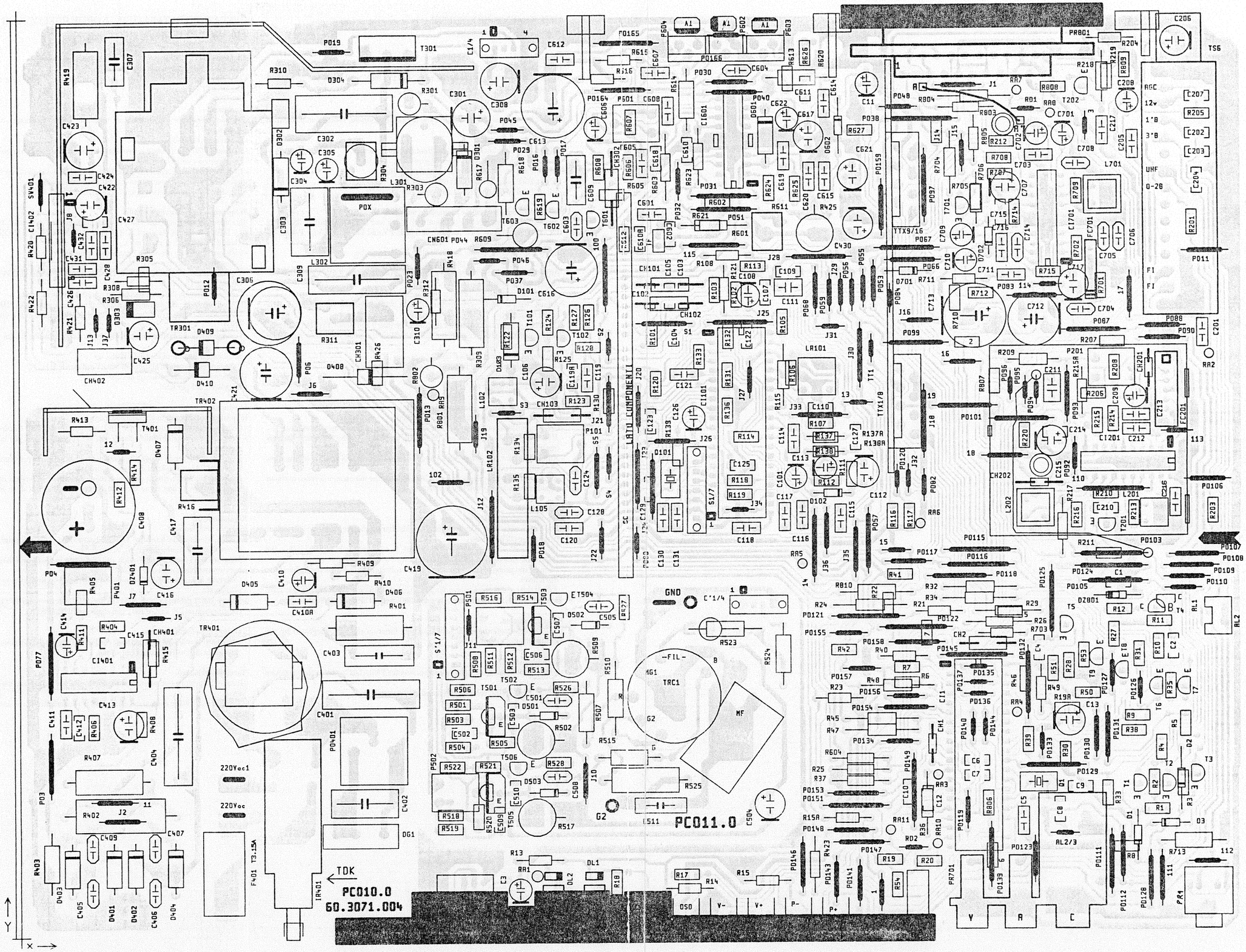
C992-100N
C993-100N
C994-100N
C995-100N
C996-100N
C997-100N
C998-100N
C999-100N
C1000-100N
L201
L101
LR101-330NS
AL1 16 OHM
AL2/3
NOT FOR 14" PR701
INPUT VIDEO
INPUT AUDIO
FOR RADIO
FOR TTXT
FOR 21"
(ONLY FOR 21") D410-C423
MUTING AUDIO D701
TTXID PIN17 CI-1
TTXEN PIN3 CI-1
BUS PIN11 CI-1
PIN 27 CI-1
PIN18 CI-1
PIN 18 CI201
+12, 6Vcc
+15Vcc
+105Vcc
+5Vcc
+5V (A)
+5V (B)
+12V (A)
220Vac
220VAC
240VAC (UK)
F401-T3, 1A
DEGAUSSING
TTX1
TTX8
TTX9
TTX16
TT1
SC1
SC2
SC3
SC6
SC8
SC9
SC11
SC12
SC14
SC23
S1
S2
TF
TV
RA1
RA2
RA3
RA4
RA5
RA6
RA7
RA8
RA9
RA10
RA11
RD1
RD2
DL1
DL2-LA3360-F
RED
GREEN
BLUE
FB
R
G
B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PC010.0
60.3071.004
TDK
220Vac1
220Vac
GND
-FIL-
TRC1
MF
LATU COMPONENTI
TTX9/16
TTX1/8
TS6
PR801
CH402
CH401
CH102
CH103
CH201
CH202
CH2
TR301
TR402
TR401
LR101
LR102
PA701
PA1
AL2/3
AL1
AL2
DZ801
FC201
FC701
FW01 T3.15A
IR401
DL1
DL2
OSD
V-
V+
P-
P+
R
G
B
A
C
V
Y
X

ADJUSTMENT PROCEDURE
PC010 CHASSIS «TEMA»

Power Supply.
(Brightness and contrast to minimum; dark screen).
-Adjust P401 to 105V ± 1V on R418 for 14" and 15"; 102V ± 1V for 17"; 117V ± 1V for 20" and 21".

Geometry.
(Monoscope or cross-hatch signal to the aerial - Brightness, contrast and colour in middle position).
- Short circuit on C602
- Adjust P601 to obtain minimum horizontal running picture.
- Disconnect the bridge short circuiting on C602.
- Adjust P604 for picture correct vertical centering.
- Adjust P602 to center the picture horizontally.
- Adjust L301 to obtain correct horizontal size (20" - 21").

Video and audio intermediate frequencies adjustment.
(Intermediate frequency video signal with video and audio modulation: 38.9 MHz PV - 33.4 MHz PA for BG standard; 39.5 MHz PV and 33.5 MHz PA for I standard with level of about 50 mV).
- Apply the signal in parallel to C213 with a balanced probe.
- Connect a voltmeter (5V - 10M Ω) across C213.
- Adjust, with a plastic screwdriver, L504 in order to obtain 2.5V. Verify that the voltage swing is from 1V to 5V.
- Connect the oscilloscope probe to pin 20 of scart plug.
- Adjust, with a plastic screwdriver, L202 to obtain minimun voltage at 5.5 MHz signal frequency.
- Connect a differenti al voltmeter (20K Ω/V) on pins 9 and 10 of CI5 (TDA 8191).
- Adjust, with a plastic screwdriver, L701 to obtain the same voltage on pins 9 and 10 (typical value 4.3V).
- Disconnect the signal across CH201.
- Connect a signal to aerial imput (800 μV on H1 - channel).
- Connect a voltmeter across C208.
- Adjust P201 to obtain 8.5 V.

Luminance - Crominance circuits adjustment.
(Colour test pattern with standard modulation).
- Connect oscilloscope probe (10:1) on collector T501 (blu final amplyfier stage).
- Use the remote control to set the colour amplitude to the schematic diagram (matric condition).
- Adjust P101 for the lowest signal amplitude in the area ANTI-PAL information. (Amplitude of direct signal).
- Adjust, with a plastic screwdriver, L501 to obtain the minimun difference in colour signal amplitude between tho consecutive lines.

G2 Adjustment.
(Use standard test pattern).
- Use the remote control unit to blank the last bar on the grey scale and set colour to minimun (B/W picture).
- Use the oscilloscope (probe 10:1), d.c. imput, to measure the black bar level on the three collectors of T501 - T503 - T505.
- Connect the probe of the oscilloscope to the collector which shows the hightest d.c. black level.
- Adjust with G2 potenziometer for 115V with 14", 15" and 17" picture tubes; 160V with 21" VIDEADOR picture tubes and 130V with 21" PHILIPS picture tubes.

Focus adjustment.
Use the focus potenziometer to obtain best focus on the area suggested by the manufacturer of picture tubes.

White adjustment.
(Before beginning adjustment, set potenziometer P501 - 502 to obtain the maximum video output level).
- Adjust P501 - 502 if coloration is noted on the grey scale.

OPERAZIONI DI TARATURA - NORME PRELIMINARI
TELAIO PC010 «TEMA»

Alimentazione.
(Luce e contrasto al minimo, schermo buio).
- Regolare P401 per 105V ± 1V su R418 per 14"; 102V ± 1V per 15" e 17"; 117V ± 1V per 20" e 21".

Geometria.
(Segnale monoscopio e reticolo in antenna. Luce, contrasto, colore a metà regolazione).
- Cortocircuitare C602.
- Regolare P601 per il minor scorrimento dell'immagine in senso orizzontale.
- Disinserire il ponticello di cc. su C602.
- Regolare P604 per la corretta centratura dell'immagine in senso verticale.
- Regolare P602 per la centratura orizzontale dell'immagine.
- Regolare L301 per la corretta ampiezza orizzontale (20" - 21").

Frequenza intermedia video e audio.
(Segnale a media frequenza video con modulazione video e audio: 38,9 MHz PV - 33,4 MHz PA per lo standard BG; oppure 39,5 MHz PV e 33,5 MHz PA per lo standard I con livello di ca. 50 mV).
- Collegare il segnale con sonda bilanciata in parallelo a CH201.
- Collegare un voltmetro elettronico (5V F/s - 10M Ω) ai capi di C213.
- Con cacciavite di plastica tarare L504 per una tensione di 2,5V nel tratto di variazione da 1 + 5V.
- Collegare la sonda dell'oscilloscopio sul pin 20 della presa Scart.
- Con cacciavite in plastica tarare L202 per il minimo segnale a 5,5 MHz.
- Collegare un voltmetro differenziale (20 K Ω/V) sui piedini 9 e 10 di CI5 (TDA 8191).
- Con cacciavite in plastica tarare L701 per la stessa tensione sui due piedini (tipico 4,3V).
- Scollegare il segnale ai capi di CH201.
- Collegare un segnale in antenna di 800 μV sul canale H1 (11).
- Collegare un voltmetro ai capi di C208.
- Regolare P201 per 6,5V.

Luminanza - Crominanza.
(Monoscopio colore con modulazione standard).
- Collegare la sonda all'oscilloscopio (10:1) sul collettore di T501 (finale del blu).
- Regolare, con il telecomando l'ampiezza del segnale colore, per la condizione di matrice.
- Regolare P101 per la minor ampiezza del segnale in corrispondenza dell'informazione anti PAL. (Ampiezza del segnale diretto).
- Regolare con cacciavite di plastica L105 per la minor differenza di ampiezza del segnale colore di due righe consecutive in corrispondenza delle barre di colore (fase).

Regolazione G2.
(Segnale monoscopio).
- Con il telecomando interdire l'ultima barra della scala dei grigi e mettere al minimo il colore (immagine (B/N).
- Misurare con l'oscilloscopio (sonda 10:1) collegato in continua il livello della barra nera sui tre collettori di T501 - T503 - T505.
- Collegare la sonda dell'oscilloscopio sul collettore con livello del nero in continua più elevato.
- Tarare con il potenziometro della G2 per 115V con cinescopi 14", 15" e 17"; 160V con cinescopi da 21" VDC e 130V con cinescopi PHILIPS 21".

Taratura della focalizzazione.
- Effettuare la migliore focalizzazione mediante l'apposito potenziometro nella zona consigliata dal costruttore del cinescopio.

Taratura del bianco.
(Iniziare la taratura con potenziometro P501 - 502 per la massima uscita del segnale video).
- Tarare P501 - 502 se compaiono colorazioni predominanti sulla scala dei grigi.